Sociological Theory II
SOS3506
Erling Berge

# Social complexity and assemblages

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#### Literature:

- DeLanda, Manuel. 2006. A New Philosophy of Society. Assemblage Theory and Social Complexity. London: Continuum.
- Braudel, Fernand. 1979. *The Wheels of Commerce*. New York: Harper&Row.

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# Assemblages or totalities

- Avoid the organism metaphor: the seamless whole
  - Functionalism
  - Systems theory with relations of interiority (parts-whole relations)
- Expand on methodological individualism
  - Rational choice theory
  - Neo-Institutional theory
  - Actor-structure dualism
- Include emergence based on mechanisms of interaction
  - Parts have properties that may be listed
  - Parts have capacities for interaction undetectable outside the interaction situation
- Call it assemblages with relations of exteriority (parts are self-subsistent entities but relates to each other)
  - Emergence based on <u>exercise of capacities</u>, not on aggregation of properties

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#### Assemblages

- · Relations are contingently obligatory, not logically necessary
  - Study of these needs empirical investigations
- Heterogeneity is a variable characteristic of assemblages
- Roles of parts varies
  - From material to expressive
  - Territorialisation is stabilizing a whole by creating spatial contiguity or homogeneity of parts (sorting)
  - Deterritorialisation is destabilizing
- Two thresholds: emergence of genetic coding and emergence of linguistic coding
  - Coding expressing identity (genetic, linguistic)
  - These codes are assemblages in their own right
  - Territorialisation provides a first order articulation of parts
  - Genetic or linguistic coding provides a second order articulation of components reinforcing the one provided by territorialisation
- Decoding occurs f.e. when organisms change from expressing their genetic code to rely on learned behaviour or when human interaction goes from more to less rule governed
- Genetic or linguistic coding should not be seen to establish relations of interiority

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#### Assembly of physical, biological or social entities

- Processes are recurrent, implying
  - Assemblages exist in populations
- Interactions may create assemblages at a higher scale, meaning
  - Populations of assemblages may be nested
  - Providing a micro-macro link
- Case: the emergence of "markets" at different scales
- Processes of territorialisation and coding require mechanisms
  - Inorganic and organic assemblages based on causal mechanisms, linear causality will be expanded to non-linear
  - Social assemblages based on causal mechanisms and mechanisms based on reasons and motives

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#### Causality

- Causes <u>produce</u> effects (effects are not implied as in logical implication), production is done by the mechanism
- Linear causality produced by atomistic events
- Entities have <u>thresholds capacities</u> defining how external causes may affect them, providing non-linearity
- Some external causes are <u>catalysts or triggers</u> in the sense of affecting capacities and processes among the parts of the assembly rather than their properties
- Catalysts provides possibilities for
  - Same cause different effects
  - Different causes same effect
- In populations causation will usually be statistical due to
  - Internal heterogeneity or
  - Interference from simultaneous processes

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#### Totalities in a block universe

- Can be abandoned by means of these causal mechanisms
  - Material components of assemblages involve all types of causation
  - Expressive components typically involve catalytic causation
  - Linguistic causes trigger reasons or motives
  - Means-ends conclusions require motives
  - Reasons (weight of tradition, intensity of feelings, beliefs, desires)
- Mechanisms will usually be mixtures of causes, reasons and motives
  - Labelling them as rational or irrational will obscure the complexity of social mechanisms
  - Complexity implies probabilistic causation for single actors as well as populations
  - Synthesis in large scale assemblages may involve choice and intentional actions as well as collective unintended consequences

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# Assemblages against essences

- Essences may today reappear as reification of certain categories or classifications ('natural kinds')
- Assemblage theory does not support such reification
- Focus is on the historical (cosmological, evolutionary, human) processes (territorialisation, and/or coding) creating individual members of larger scale assemblages
- At higher levels individual assemblages may be an abstract space of possibilities where historical processes leads to differentiation
- Topological invariants of such spaces may be called universal singularities
- A set of universal singularities structuring the space of possibilities will be referred to as a diagram of the assemblage

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#### Analysis in assemblage theory

- Not conceptual or logical but empirical and causal endeavouring to discover mechanisms
- Since diagram of assemblages are not actual but virtual and mechanism independent they require a different form of analysis
- Quasi-causal topological constraints on the structure of a space of possibilities
- Mechanisms of emergence is a core problem in understanding micro-macro linkages
  - More than two levels are involved
  - A bottom-up approach does not imply methodological individualism, even persons are assemblages
  - Emergent wholes react back on component parts with constraints and resources appearing as opportunities and risks to single individuals
  - Assemblages act with causal impacts on one another
  - Causal redundancy allows similar impacts from both whole assemblages and individual components
  - Large scale assemblages have a real existence since they causally impact constituent parts, limiting and enabling them as well as affect causally other assemblages at their own scale

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#### Adjustments needed in multi-scale social reality

- On emergence: reproduction and maintenance take precedence over historical origin (territorialisation overcoming deterritorialisation)
- Origin of larger scale assemblages will usually involve existing assemblages
- Explaining social processes may involve several scales
- Summary: all assemblages exist as single unique, singular, historically contingent individuals independently of our minds with possibilities constrained by the distributions of universal singularities, the virtual diagram of singularities

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#### Temporal scale

- Scale free entities and part-to-whole relations
  - Genetic and linguistic entities are capable of variable replication
  - Populations of replicators, when coupled to a filter or sorting device, are capable of guiding change over time
  - Sometimes the bias is towards adaptation that may serve as a learning mechanism
  - Operating at multiple spatial scales simultaneous
- Relative duration of processes capable of changing assemblages
  - Short term strategic planning within a lifetime of parts
    - · Mobilisation of internal resources
    - Is timing of internal change to external pressure possible?
  - Long term processes over several lifetimes of parts
  - Longevity from overlapping generations and linguistic transmission reinforcing identities

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#### Persons and networks

- Starting with persons as the smallest assemblages
  - Modeling the person emerging as relations of exteriority
  - Might start with the singular qualities of impressions and ideas about their meaning
  - Actions of formal operators on their arguments (like causes on effects) are relations of exteriority
    - 3 operators from Hume's original qualities of human nature (in "A Treatise of Human Nature")
    - 1. Grouping ideas through relations of contiguity (in space and time)
    - 2. Comparisons through relations of resemblance
    - 3. Pairings of causes and effects by their perceived constant conjunction
  - Generates a pragmatic subject emerging from these operations paired with the passions (the principle of utility)
  - Constituting an assemblage with material and expressive, stabilizing and destabilizing characteristics
  - Based on labour: focused attention needed in the production

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#### The person: sub-personal components

- Territorializing/ stabilizing the personal identity: habitual repetition
- De-territorializing: all processes taking the subject back to the state prior to fixed associations of ideas (e.g. madness, high fever, intoxication, sensory deprivation: cpr. the shock doctrine)
- Also acquisition of new skills will augment capacities and change personal identities
- Language emerged from a non-linguistic intelligence augmenting this through it combinatorial productivity
  - The association theory of ideas is then augmented with the complexity generated from a grammar evolved for combinatorial productivity
- · Language furthers the formation of beliefs
- Ideas are low-intensity replicas of impressions
- Beliefs provides higher intensity to some (believed) ideas than others
- Disbelief provides lower intensity to some (disbelieved) ideas
- The role of intensity versus semantic content of propositions

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## The person: interpersonal traits

- Emerging from interactions between persons
  - Social encounters (ref.: Goffman)
  - The public image present what people want to be not what they are
    - Conversations among persons seen as an assemblage (co-presence (modified by technology), attention, involvement, ritual equilibrium)
    - Ritual equilibrium
    - Communication: words have signification (semantic content) and significance (pragmatic content)
  - Networks emerge from repeated encounters
    - Pattern and properties of recurring links are then more important then the characteristics of the persons
      - Presence or absence, reciprocity, strength, and emotional content of links have consequences for rule enforcement
      - Network density and stability have consequences for solidarity
    - · Conflicts between communities focus attention on borders and identity
      - Shared narratives and categories will usually miss collective unintended consequences of intentional action, accumulation of resources too slow for detection by direct experience. They are there to further group boundary maintenance

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# Populations of networks

#### Charles Tilly:

- Sometimes interaction of networks leads to political coalitions or social movements
- From 1750-1850 social movement action moved from physical violence to non-physical expressive or linguistic activities demonstrating to be respectable, unified, numerous, and committed
- This lead to a shift in organisation from authorised communities to specialized associations
- The state and its capacity for physical force is always part of such assemblages of networks
- · Dynamic cycles of protest and claim-making can be identified
- Social categories often shape activities of movements. Not because they directly shape perceptions, but because the rest of society treat them according to the categories with unequal rights and obligations and sort them into ranks
- Struggles over categories are also struggles over resources and rights

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## Social class as assemblage

#### Pierre Bourdieu expands on economic class

- Differential access to resources and uneven exposure to opportunities and constraints sort people/ networks into ranks enduring across generations
- Making common interests effective require organisation
- Relations among classes: above, below or between, an also proximity
- How do class position relate to lifestyle?
- Objective opportunities conditions activities and develops habits and skills called "habitus" by Bourdieu
- Bourdieu's automatic link between objective conditions and behavioural disposition needs to be de-linked into causes, reasons and motives

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# Linguistic construction of subjective experiences is not enough

- Submission to order or obedience to authority is not something that can be taken for granted. It must be accounted for in terms of enforcement mechanisms
- Ranking processes maintaining differential access to capital (economic and cultural) are often resource dependence relations between institutions
- Tilly's notion of specific sorting practices, inclusion and exclusion, producing bounded groups more or less corresponding to linguistic categories but requiring enforcement by physical means

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# Organisations and governments

- Organisations involved in the imperative coordination of social action and their authority structure
  - Expressive elements for legitimacy
  - Material elements enforcing obedience
- Weber (by decreasing separation of role and incumbent):
  - Rational-legal bureaucracies
  - Traditional-sacred structures (religious, monarchical)
  - Charismatic authority
- Most organisations are mixtures, but rational-legal forms with relations based on contract has been growing in importance with clear emergent properties: they are actors independent of incumbents in their positions
- Expressing legitimacy occurs in many ways, some linguistic (beliefs), some not (ceremonies, rituals, leader behaviour)
  - Rational-legal: procedures work, quality of output
  - For all: daily following of commands (and observed by members)
  - Punishments play multiple roles from discussion of proper punishments to display of torture and confinement

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## Monitoring and Disciplining

- Foucault points to the merger of military and legal thinking in modern bureaucratic approaches to obedience and discipline
  - Time and space partitioning of activites
  - Ceaseless inspections
  - Permanent and cumulative registration (and lowering of thresholds for permanent records)
- Stabilizing an authority assemblage
  - Jurisdiction (being legitimate and enforceable)
  - Regular succession
  - Routinization of all activities, including succession
- · Linguistic elements
  - Technical language used in records
  - History and it interpretation
  - Group beliefs converging to a corporate culture shaping legitimization and enforcement

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#### **External identities**

- Populations of organisations, each member possess capacities for interaction not possessed by persons or networks leading to hierarchies and networks of organisations with emergent properties
  - Government is a hierarchy of organisations
  - A network of suppliers and distributors of an industrial production organisation
- At larger scales collective action and uninteded consequences become more prominent
- Relations of resource dependence
  - Relative importance of resource measured by magnitude and criticality
  - Consentration of resource measured by degree of control and substitutivity
- · Coping strategies
  - Vertical integration, economies of scale, may lead to oligopoly
    - · Interlocking directorates may prevent unilateral triggered price wars
  - Networks of small firms achieveing economies of agglomeration
    - Relations of consultative cooperation

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# Assemblages of organisations

- Expressive behaviour: interpretation of strategic significance both in terms of dominance and submission
  - Expressions may be loud or quiet
  - Reputations of trust and reciprocity vs self-regarding and unilateral actions conditions outcomes of social dilemmas
- Decisions based on beliefs about
  - Reactions of other members of an oligopoly
  - Degree of compliance by dependent firms
  - Degree of solidarity in a network
- · Implementation of strategies
  - Adequacy of beliefs about causal relations
  - Territorialisation (and at the other pole: deterritorialisation)
    - · Small networks: a local pool of skilled workers
    - · Larger corporations: lifelong careers of skilled personnel
    - Trade and industry associations (setting standards, distribute information, and research) vs environmental turbulence (rate of innovation)
  - Adaptation to a stream of external shocks maay depend on the characteristics of the assemblage
    - Possibly giving the edge to networks as frequency and magnitude of change increase

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# Interdependence and contracts

- All contracts are by necessity incomplete
- Employment contracts are usually simpler than sales contracts
- Interdependence regulated by contract may become so complicated that vertical integration is seen as more profitable
- Property rights and enforcement of contracts implies that a big group of government organisations belong in any industrial assemblage
- Cartels may sometimes be seen as industry created authority relations

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#### Federal government organisations

- Governments are hierarchies of organisations linked by relations of exteriority.
- A monolithic reified idea of the state must be avoided. Joint action of governmental organisations cannot be taken for granted
- In democratic regimes there is a see-saw relation between legitimacy (elections, principals) and efficiency (bureaucracy, agents)
- Asymmetric information applies at all scales (bureaucracies and industries)
- Government hierarchies must conceptually be distinguished from the territories they control
- Their enduring features must be separated from their interaction with other organisations, coalitions of networks or populations of persons where the government hierarchy becomes part of a larger scale more episodic assemblages

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#### Hierarchical assemblages

#### Authority

- Expressive process
  - Legitimization of authority
    - Constitution (linguistic)
      - Creating an institutional template for legislation
    - Elections (non-linguistic)
    - Technical efficiency and fairness of procedures in bureaucracies
- · Material process
  - Enforcement of authority
    - Military and police organisations (physical force)
    - · Appointments, removal, funding
    - · Design of institutions (incentive structures)
- Territorialisation
  - Distinguish between identity of policies and identity of organisations
  - Professionalization of the civil service
- Deterritorialisation
  - Coups d'état
  - Constitutional crisis

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#### Interactions

- Case: War
  - Recruitment of people and taxation to cover costs create resource dependencies between governments and people
  - Expression of identity depends on existing sources of legitimacy (state and nationhood symbols) working together to make soldiers willing to die for their country
  - Conflict or threat of it will reinforce identity processes ("us" versus "them")
  - Internal conflicts will similarly deterritorialise the government

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#### Cities and nations

- Spatial aspects of networks and organisations at larger scales
  - Cities [and landscapes in its original meaning]
    - Physical infrastructure shaped by the repeated and rhythmic activities
    - Locales: Settings of interaction, contextuality, routinized usage, zoning in time and space
    - Conscious choices and planning may break (or accelerate) the slow accumulation of rhythmic activities
  - Buildings: load bearing structures change form according to scale, connectivity of regions impinge on usages (historically this relates to the growth of privacy), expression of class and status by decorations (in apartment buildings the elevator shifted social stratification from high status at the bottom to high status at the top)
    - Stabilized by tradition, destabilized by fashion and changes in routines
    - Populations of buildings forming larger scale assemblages

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#### Cities

- Adding connectivity of all kinds and meeting places to populations of buildings regionalized by activity types
  - Expressive elements in external decorations and space for views
  - Processes of congregation and segregation (often fuelled by externalities, but also institutionalised, or a result of particular modalities of choice)
  - Deterritorialisation by geographical mobility, shifts in land rents affecting the composition of neighborhoods
  - The central area (with highest land rent) is privileged in determining the identity of the city, in interaction with the surrounding landscapes
  - Skylines will express one kind of identity
  - Urban growth and domination of the countryside depending on a self-stimulating dynamic
    - Conditioned on the region to which both belong and
    - · Conditioned on transportation technology

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# City identity

- Stabilizing a city's identity
  - Physical borders, residential practices created loyal citizens in the medieval walled towns not in ancient Greek towns
  - Deterritorialisation by transport technology and suburbanisation
  - Historical processes creating populations of new urban settlements and destroying some old
    - Before 1350 in opposition to feudal landlords. In some areas (Northern Italy, the Netherlands, Flanders, parts of Germany) hierarchies and networks of cities appeared. In other areas (England, France, Spain) hierarchies were absent or distorted
    - Central place theory for hierarchies of towns
    - Differentiation from breaking symmetries of resource dependence through self-stimulating as well as other forms of accumulation
      - Centripetal forces (population growth, investments)
      - Centrifugal forces (congestion, pollution)
    - Simulations show the differentiation process to be historically path dependent

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#### **Networks of cities**

- Networks of e.g. maritime cities based on complementarities
  - Power based on monopolizing the most profitable goods (Core: from Venice, to Antwerp, to Genoa, to Amsterdam, to London, to New York)
  - Control exerted at a distance. Maritime transport much faster than by land
  - By 1700 the network was global
  - Expressive components
    - Increasing variety and complexity in the displays both physically and symbolically in hierarchies
    - Cultural diversity and variety of products from around the world in trade networks
  - Territorialisation: Cultural exchanges within hierarchies
  - Deterritorialisation: the gateway functions of maritime towns and networks

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#### **States**

- State territories defined basically between 1494 and 1648
- Dominant feudal cities (Paris, Madrid, London) were first able to combine city and hinterlands into territorial states often by military means and heavily shaped by interactions of arms races and taxation techniques
- After 1648 the monetary and fiscal policies and administration only increased in importance but heavily conditioned by geopolitical location
- Mercantilism based on a false belief in the role of bullion in economic growth nevertheless had unintended beneficial consequences in the long run
- The reform of public finances in England between 1688 and 1756 is a case of organisational learning "without any discernible plan of action" (Braudel 1979:525)

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## Territorial states as assemblages

- Material resources (natural, demographic)
- Connectivity and ability to create national markets
  - England by canals and roads
  - 2. France, Germany, USA by locomotives and telegraph (steam shifted the balance of power towards land transport)
- Expressively the territorial identity showed up in urban design after 1650 in capital cities: The "Grand Manner" urban design. The more centralized the power, the grander the urban design.
- The stability of territorial state identity depend on homogenisation ("nation building") of its organisations, cities, and language. Resistance to linguistic homogenisation has been destabilizing

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# Stability of territorial states

- Stability of frontiers
  - The frontier itself (annexations, secessions) relate to military power and war
  - Control of flows across the borders are important
    - If the volume is too high it will be deterritorializing
    - · History and geopolitical context is important
      - Hierarchies of independent cities are more difficult to stabilize than the states dominated by a single large city
      - Cities belonging to global networks can resist control and penetrate frontiers better than hierarchies and may occasionally be able to create "world economies" encompassing several states

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# Concluding

- The reductionist ontology do not do justice to historical data.
- The macro reductionism of the "world systems" approach of Immanuel Wallerstein where the system determines the very nature of states within it
- The micro-reductionism of neoclassical economics
- The argument here has been for a non-reductionist approach where each level has its own type of social units emerging from interactions among units at lower levels reacting back on the lower level units constraining and enabling them
- Entities at all levels have a relative autonomy sufficient to invalidate the reductionist approach

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